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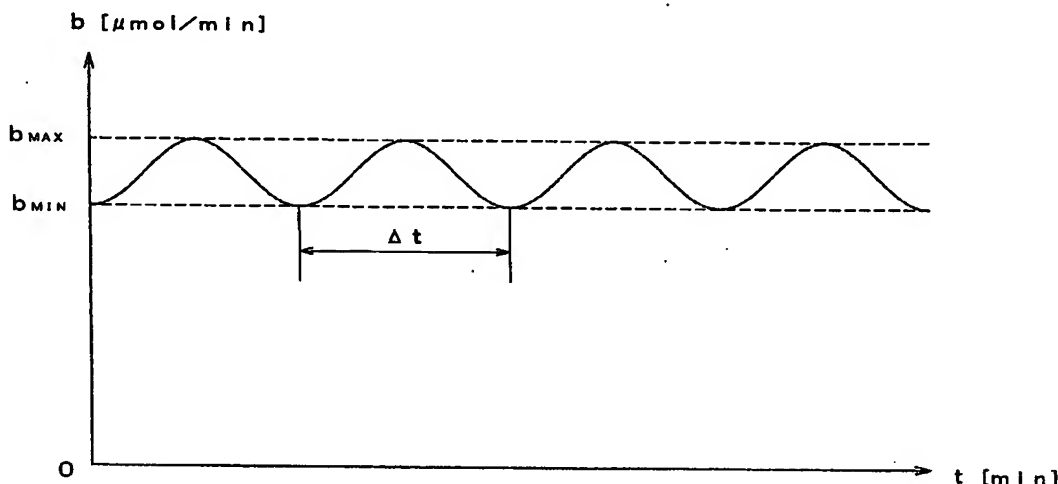
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(54) Title: LIGHT-EMITTING SEMICONDUCTOR DEVICE AND A METHOD OF MANUFACTURING IT



(S7) Abstract: A group III nitride semiconductor light-emitting device that comprises a single active layer at least including indium (In) of which composition ratio is in a range of 0.001 to 0.05 and varied at a constant period L in waveform along the direction parallel to the growth axis. And said period L is arranged to be approximately constant value selected from a range of 1 to 10 nm or that of one to six times of Bohr radius R. Adopting the structure of the said active layer, remarkably ideal condition for localizing excitons can be obtained and a light-emitting device having high gain can be manufactured by simple process that varies supply amount of indium material gas per unit time periodically in waveform during growth of an active layer. furthermore, as for a semiconductor laser diode, remarkably low threshold voltage can be obtained too.

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